

32-190054: IL-33 (oxidation resistant) (human) (Recombinant) (His)

Application : Functional Assay

Reactivity : Human

Alternative Name : IL-33 (human) (C208S / C227S / C232S / C259S Mutant); Interleukin-33 (human) (C208S / C227S / C232S / C259S Mutant); IL-1F11; NF-HEV

Description

Source :E. coli

Specific Binds to human and mouse ST2. Interleukin-33 (IL-33; HF-NEV; IL-1F11), a member of the IL-1 family of cytokines, is expressed by many cell types following pro-inflammatory stimulation and is thought to be released upon cell lysis. IL-33 binds to and signals through ST2 (IL-1R1) and its stimulation recruits MYD88, IRAK, IRAK4 and TRAF6, followed by phosphorylation of ERK1 (MAPK3) / ERK2 (MAPK1), p38 (MAPK14) and JNK. The ability of IL-33 to target numerous immune cell types, like Th2-like cells, mast cells and B1 cells, and to induce cytokine and chemokine production underlines its potential in influencing the outcome of a wide range of diseases, such as arthritis, asthma, atopic allergy & anaphylaxis, cardiovascular disease/atherosclerosis, nervous system diseases and sepsis. IL-33 facilitates Treg expansion in vitro and in vivo. Recently, IL-33 has been involved in adipocyte differentiation. The biological activity of IL-33 at its receptor ST2 is rapidly terminated in the extracellular environment by its oxidation (formation of two disulfide bridges), resulting in an extensive conformational change that disrupts the ST2 binding site. Cysteines at amino acids C208, C227, C232 and C259 control IL-33 oxidation and mutations of two or more of these four cysteines protect IL-33 from oxidation and increase its activity.

Product Info

Amount : 100 µg / 10 µg

Purification : ≥95% (SDS-PAGE)

Reconstitute with 100µl sterile water. After reconstitution:

Content : for 10µg size: 0.1mg/ml

for 100µg size: 1mg/ml.

Lyophilized. Contains PBS.

Short Term Storage +4°C ; Long Term Storage -20°C ; After reconstitution, prepare aliquots and store at -20°C.

Storage condition : Avoid freeze/thaw cycles.

PBS containing at least 0.1% BSA should be used for further dilutions. Stable for at least 6 months after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C.

Amino Acid : Human IL-33 (aa 112-270) is fused at the C-terminus to a His-tag. Amino acids C208, C227, C232 and C259 have been mutated to serine to protect IL-33 from oxidation.

Application Note

MW : ~17kDa;

Biological Activity: Activates human and mouse ST2-dependent NF-κB pathway.

Endotoxin Content: <0.01EU/µg purified protein (LAL test).